

REMARKS

Claims Rejections Under 35 USC 102(e)

Claims 8, 9 and 17-20 have been rejected under 35 U.S.C. 102(e) as being anticipated by Matsuzaki et al. (U.S. Patent No. 6,194,930).

Claim 8 recites "adjusting trim units in the delay line in a pre-determined pattern during consecutive clock cycles".

In contrast, Matsuzaki et al. teaches that during each clock cycle, the delays introduced by the delay lines 11 and 13 are controlled in response to the control signals Q0-Q4. Different values of the control signals Q0-Q4 introduce different delays. For example, Matsuzaki et al. teach that a delay of 1τ is introduced when the control signals Q0-Q4 have a value of 00001, and that a delay of 31τ is introduced when the control signals Q0-Q4 have a value of 11111. (See Matsuzaki et al, Figs. 15, 17 and 18.) This is simply the decoding scheme used to implement the delay adjustment of the delay lines 11 and 13.

However, Matsuzaki et al. fail to teach or suggest that the values of the control signals Q0-Q4 exhibit "a pre-determined pattern over consecutive clock cycles" as recited in Claim 8. Rather, Matsuzaki et al. teaches that the pattern of the delay adjustment over consecutive clock cycles can be just about anything, as required to achieve a lock-on state with respect to the C-CLK and d-i-clk signals. That is, the values of control signals Q0-Q4 can exhibit many different patterns during consecutive clock cycles, depending on the phase differences between the clock signals (c-clk and d-i-clk) applied to phase comparator 16. (See Matsuzaki et al., description of phase comparator 16.)

Because Matsuzaki et al. teach that the values of control signals Q0-Q4 can be adjusted in any number of different patterns in response to the clock phase differences, Matsuzaki et al. fail to teach "adjusting trim units in the delay line in

a pre-determined pattern during consecutive clock cycles" as recited by Claim 8. For this reason, Claim 8 is not anticipated by Matsuzaki et al.

Claims 9, 17 and 18, which depend from Claim 8, are not anticipated by Matsuzaki et al. for at least the same reasons as Claim 8.

In addition, Claim 17 recites "the energy of the clock signal being spread equally over the different frequencies". Contrary to the Examiner's assertions, the cited portion of Matsuzaki et al. does not teach this limitation of Claim 17. In fact, the cited portion of Matsuzaki et al. provides for "a frequency divider circuit for dividing in $\frac{1}{2}$ the frequency of a timing signal". (Matsuzaki et al., Col. 7, lines 52-54.) Frequency dividing a timing signal in half is not equivalent to spreading the energy of a clock signal equally over different frequencies. For this additional reason, Claim 17 is not anticipated by Matsuzaki et al.

Claim 19, which recites "enabling delay trim units in the adjustable delay line, such that the generated clock signal exhibits a first clock period in a regular pattern; ... a second clock period in a regular pattern ... and a third clock period in a regular pattern", is not anticipated by Matsuzaki et al. for reasons similar to Claim 8.

Claim 20, which recites "adjusting the delay trim units of the adjustable delay line in a repeating regular pattern during successive clock cycles", is not anticipated by Matsuzaki et al. for reasons similar to Claim 8.

Claims Rejections Under 35 USC 103(a)

Claim 21 has been rejected under 35 U.S.C. 103(a) as being unpatentable over Matsuzaki et al. in view of Hardin (U.S. Patent No. 5,631,920).

As described above, Claim 20 is allowable over Matsuzaki et al. Claim 21 depends from Claim 20. Hardin fails to remedy the above-described deficiencies of Matsuzaki et al. Thus, Claim 21, which depends from Claim 20, is therefore allowable over

Matsuzaki et al. in view of Hardin for at least the same reasons as Claim 20.

In addition, Claim 21 recites "the energy of the generated clock signal being spread over the different frequencies". As described above in connection with Claim 17, Matsuzaki et al. fail to teach this limitation. For this additional reason, Claim 21 is allowable over Matsuzaki et al. in view of Hardin.

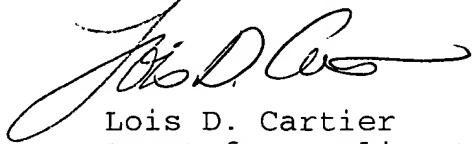
Objections to the Claims

Claims 11-16 have been objected to as being dependent on a rejected base claim. The Examiner has indicated that these claims would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Applicants believe that base Claim 8 is allowable for the reasons recited above. For this reason, Applicants are not amending Claims 11-16 at this time.

CONCLUSION

Claims 1-4 and 6-21 are pending in the present application. Reconsideration and allowance of these claims is respectfully requested. If there are any questions, please telephone the undersigned at (720) 652-3733 to expedite prosecution of this case.

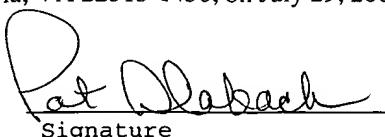
Respectfully submitted,



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